

What is claimed is:

- Sub 1.1*
1. A method for creating a self-destructing document, comprising the steps of:
- creating an executable module which instructs a computer to overwrite and/or delete a document to which the executable module is attached;
 - attaching the executable module to the document.
2. The method according to claim 1, wherein the executable module is an executable code.
3. The method according to claim 1, wherein the executable module is an executable program.
4. The method according to claim 1, wherein the executable module is a macro.
5. The method according to claim 1, further comprising the step of executing the executable module when the document is opened.

Sub 6.1

A self-destructing e-mail messaging system, comprising:

- an executable module, the executable module configured to instruct a computer to delete a message to which the executable module is attached;
- an e-mail messaging system, the e-mail messaging system configured to create an e-mail message and to transmit the e-mail message, the e-mail messaging system attaching the executable module to the e-mail message prior to transmission.

6. The system according to claim 5, wherein the executable module is an executable code.
7. The system according to claim 5, wherein the executable module is an executable program.
8. The system according to claim 5, wherein the executable module is a macro.
9. The system according to claim 5, wherein the executable module is configured to overwrite the message with null characters.
10. The system according to claim 5, wherein the executable module is configured to delete the message.

11. The system according to claim 6, wherein the executable module is configured to instruct the computer to ~~delete~~ the e-mail message upon the occurrence of a predetermined condition.
12. *Sub B1* The system according to claim 11, wherein the predetermined condition is a date.
13. The system according to claim 6, wherein the executable module is configured to execute when the e-mail message to which it is attached is opened.
- merc3* 14. The system according to claim 6, wherein the executable module is configured to begin execution when the e-mail message to which it is attached is opened, the executable module deleting the message during said execution if a predetermined condition is met.
15. The system according to claim 6, wherein the e-mail message is an e-mail message attachment.
16. The system according to claim 15, wherein the executable module is configured to instruct the computer to ~~delete~~ the e-mail message attachment upon the occurrence of a predetermined condition.
- Sub A3* 17. The system according to claim 16, wherein said predetermined condition is printing, copying or forwarding the e-mail message.
18. The method of claim 1, wherein the document is an encrypted document, and wherein the executable module is configured to instruct the computer to decrypt the document if a predetermined condition is met, and to delete the document if the predetermined condition is not met.
19. The method of claim 6, wherein the message is an encrypted message, and wherein the executable module is configured to instruct the computer to decrypt the message if a predetermined condition is met, and to delete the message if the predetermined condition is not met.
20. A method for creating a virtual container containing a digital object, comprising the steps of

creating a virtual container, the virtual container residing in contiguous locations in an electronic storage media of a computer, the virtual container including a header portion and a digital object portion;

selecting a digital object for insertion into the virtual container;

applying an encryption technique to the digital object to create an encrypted digital object;

writing the encrypted digital object into the digital object portion;

selecting an expiration date for the digital object;

writing information indicative of the expiration date into the header portion of the virtual container.

21. A method for extracting a document from a virtual container, comprising the steps of

reading information indicative of an expiration date from a header portion of a virtual container, the virtual container residing in contiguous locations in an electronic storage media of a computer, the virtual container including the header portion and a digital object portion, the digital object portion containing an encrypted digital object;

determining, based upon said information, if the ^{digital} electronic object is expired;

overwriting the digital object portion of the virtual container with null data if the electronic object is expired; and

reading the digital object from the digital object portion and applying a decryption technique to the digital object if the digital object is not expired.

22. A virtual container system, comprising:

a container creator utility, the container creator utility creating a virtual container which resides in contiguous locations in an electronic storage media of a computer, wherein the virtual container includes a header portion and a digital object portion, the container opener utility receiving a digital object selection and an expiration date selection from a user, the container creator applying an encryption technique to the selected digital object to create an encrypted digital object and writing the encrypted digital object into the digital object portion of the virtual container, the container creator writing information indicative of the expiration date into the header portion of the virtual container;

a container opener utility, the container opener utility reading the information indicative of the expiration date from the header portion of the virtual container, the container opener determining, based upon said information, if the ^{digital} electronic object is expired; the container opener overwriting the digital object portion

of the virtual container with null data if the ^{digital}electronic object is expired, the container opener reading the encrypted digital object from the digital object portion and applying a decryption technique to the digital object if the digital object is not expired.

23. A method for creating a virtual container and extracting a digital object from a virtual container, wherein the method of creating the virtual container comprises the steps of

creating a virtual container, the virtual container residing in contiguous locations in an electronic storage media of a computer, the virtual container including a header portion and a digital object portion;
selecting a digital object for insertion into the virtual container;
applying an encryption technique to the digital object to create an encrypted digital object;

writing the encrypted digital object into the digital object portion;

selecting an expiration date for the digital object; and
writing information indicative of the expiration date into the header portion of the virtual container;
and wherein the method for extracting the document from the virtual container, comprises the steps of

reading information indicative of an expiration date from a header portion of a virtual container,

determining, based upon said information, if the ^{digital}electronic object is expired;

overwriting the digital object portion of the virtual container with null data if the ^{digital}electronic object is expired; and

reading the digital object from the digital object portion and applying a decryption technique to the digital object if the digital object is not expired.

24. The method of claim 20, wherein the step of creating the virtual container includes the step of creating a container header and an digital object header, the container header containing information regarding the container including a container name, the digital object header containing information regarding the digital object including a name of the digital object.

25. The method of claim 24, wherein the step of writing information indicative of the expiration date includes writing said information into the container header.

26. The method of claim 24, wherein the step of writing information indicative of the expiration date includes writing said information into the digital object header.

27. The method of claim 24, wherein

the step of selecting a digital object for insertion into the virtual container includes selecting a plurality of digital objects for insertion into the virtual container;

the step applying an encryption technique includes applying the encryption technique to each of the plurality of digital objects;

the step of writing the encrypted digital object into the digital object portion includes writing each of the encrypted digital objects into the digital object portion;

the step of selecting an expiration date includes selecting an expiration date for each of the plurality of digital objects; and

the step of writing information includes writing the information indicative of the expiration date of each one of the digital objects into a respective digital object header.

28. The method of claim 23, wherein the step of creating the virtual container includes the step of creating a container header and an digital object header, the container header containing information regarding the container including a container name, the digital object header containing information regarding the digital object including a name of the digital object.

29. The method of claim 28, wherein the step of writing information indicative of the expiration date includes writing said information into the container header.

30. The method of claim 28, wherein the step of writing information indicative of the expiration date includes writing said information into the digital object header.

31. The method of claim 28, wherein

the step of selecting a digital object for insertion into the virtual container includes selecting a plurality of digital objects for insertion into the virtual container;

the step applying an encryption technique includes applying the encryption technique to each of the plurality of digital objects;

the step of writing the encrypted digital object into the digital object portion includes writing each of the encrypted digital objects into the digital object portion;

the step of selecting an expiration date includes selecting an expiration date for each of the plurality of digital objects; and

the step of writing information includes writing the information indicative of the expiration date of each one of the digital objects into a respective digital object header.

32. A method for transmitting a destructible digital object to a recipient, comprising the steps of

creating a virtual container, the virtual container residing in contiguous locations in an electronic storage media of a computer, the virtual container including a header portion and a digital object portion;

selecting a digital object for insertion into the virtual container;

applying an encryption technique to the digital object to create an encrypted digital object;

writing the encrypted digital object into the digital object portion;

selecting an expiration date for the digital object;

writing information indicative of the expiration date into the header portion of the virtual container,

transmitting the virtual container and a container opener utility to a recipient, wherein the container opener utility, when invoked by the recipient, reads the information indicative of the expiration date from the header portion of the virtual container, determines, based upon said information, if the ^{digital} ~~electronic~~ object is expired, overwrites the digital object portion of the virtual container with null data if the ^{digital} ~~electronic~~ object is expired, and reads the encrypted digital object from the digital object portion and applies a decryption technique to the digital object if the digital object is not expired.

33. The method of claim 32, wherein the virtual container is transmitted via the Internet.

34. The method of claim 27, wherein the header portion includes the container header and the digital object headers, and wherein each digital object is located adjacent to its respective digital object header in the virtual container.

35. The method of claim 31, wherein the header portion includes the container header and the digital object headers, and wherein each digital object is located adjacent to its respective digital object header in the virtual container.
36. The method of claim 21, wherein wherein the digital object is a document.
37. The method of claim 22, wherein wherein the digital object is a document.
38. The method of claim 23, wherein wherein the digital object is a document.
39. The method of claim 32, wherein wherein the digital object is a document.
40. The method of claim 21, wherein wherein the digital object is a program.
41. The method of claim 22, wherein wherein the digital object is a program..
42. The method of claim 23, wherein wherein the digital object is a program..
43. The method of claim 32, wherein wherein the digital object is a program.

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